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Section I (Amendment of the Claims)

Please amend claims 1, 4, 7, 12, 14-17, 25, 27, 30, 31, 33, 36, 39 and 40, and add new claims 42-69, as set out below in the listing of claims 1-69 of the application.

1. (Currently amended) A light emitting assembly comprising a solid state device coupleable with a power supply constructed and arranged to power the solid state device to emit from the solid state device a first, relatively shorter wavelength radiation, and a down-converting luminophoric medium arranged in receiving relationship to said first, relatively shorter wavelength radiation, and which in exposure to said first, relatively shorter wavelength radiation, is excited to responsively emit radiation having relatively longer wavelength, to produce white light from said assembly in the visible white light spectrum.

2. (Previously Presented) A light emitting assembly according to claim 1, wherein the solid state device and down-converting luminophoric medium are associated in a unitary structure.

3. (Previously Presented) A light emitting assembly according to claim 1, further comprising a housing member formed of a light-transmissive material, said housing member defining therewithin an interior volume, with said solid state device and down-converting luminophoric medium being disposed in said interior volume.

4. (Currently amended) A light emitting assembly according to claim 3, further comprising first and second electrical contacts extending through said housing member and coupleable to a power supply which is constructed and arranged for imposing a voltage on said solid state device to induce emission of said first, relatively shorter wavelength radiation ~~outside the visible white light spectrum.~~

5. (Previously Presented) A light emitting assembly according to claim 4, wherein said down-converting luminophoric medium is contiguously arranged in said interior volume of said housing in relation to said solid state device.

6. (Previously Presented) A light emitting assembly according to claim 4, wherein said down-

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converting luminophoric medium is arranged in spaced relation to said solid state device in said interior volume of said housing.

7. (Currently amended) A light emitting assembly according to claim 1, wherein said solid state device comprises a device which is selected from the group consisting of semiconductor light emitting diodes, semiconductor lasers, thin film ~~electroluminescent~~ electroluminescent cells, electroluminescent display panels, organic based light-emitting diodes, polymeric-based light-emitting diodes, internal junction organic electroluminescent devices, and combinations thereof.

8. (Previously Presented) A light emitting assembly according to claim 1, wherein said solid state device comprises a device which is selected from the group consisting of semiconductor light emitting diodes and semiconductor lasers.

9. (Previously Presented) A light emitting assembly according to claim 1, wherein said solid state device comprises a semiconductor light emitting diode.

10. (Previously Presented) A light emitting assembly according to claim 1, wherein said solid state device comprises a semiconductor light emitting diode including a substrate and a multilayer device structure, and wherein said substrate comprises silicon carbide.

11. (Previously Presented) A light emitting assembly according to claim 1, wherein said solid state device comprises a semiconductor light emitting diode including a substrate and a multilayer device structure, and wherein said substrate comprises a material selected from sapphire, SiC, and In Ga Al N.

12. (Currently amended) A light emitting assembly according to claim 11, wherein said multilayer device structure includes layers selected from the group consisting of ~~silicon carbide~~, aluminum nitride, gallium nitride, ~~gallium phosphide~~, ~~germanium carbide~~, indium nitride, aluminum gallium nitride, aluminum indium gallium nitride, and their mixtures and alloys.

13. (Previously Presented) A light emitting assembly according to claim 11, wherein said solid state device comprises a solid state semiconductor laser including an active material selected

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from the group consisting of III-V alloys and II-VI alloys.

14. (Currently amended) A light emitting assembly according to claim 1, wherein said solid state device includes an ultraviolet light source and ~~said down-converting luminophoric medium comprises a material selected from the group consisting of perylene tetracarboxylic diimide fluorescent dye; naphthalene tetracarboxylic diimide fluorescent dye; 9,10-bis(phenylethynyl) anthracene fluorescent dye; substituted 9,10-diphenylanthracene dyes; tetraphenylbutadiene (TPB) fluorescent dye.~~

15. (Currently amended) A light emitting assembly according to claim 1, wherein said solid state device includes an ultraviolet blue light source and ~~said down-converting luminophoric medium comprises a naphthalene tetracarboxylic diimide fluorescent dye, to provide blue light emission, and substituted perylene tetracarboxylic diimide dyes to provide green (or green-yellow) and red light emissions.~~

16. (Currently amended) A light emitting assembly according to claim 1, wherein said solid state device includes a blue light source and said down-converting luminophoric medium comprises a material ~~selected from the group consisting of: a naphthalene tetracarboxylic diimide fluorescent dye, to provide greater luminosity of the color hue blue; a 9,10-diphenylanthracene, to provide greater luminosity of the color hue blue; a substituted 9,10-diphenylanthracene, to provide greater luminosity of the color hue blue; 1,1,4,4-tetraphenylbutadiene (TPB) to provide greater luminosity of the color hue blue; a perylenetetracarboxylic diimide to provide greater luminosity of the color hues green and red; a perylenetetracarboxylic diimide to provide greater luminosity of the color hue red, and 9,10-bis(phenylethynyl) anthracene to provide greater luminosity of the color hue green; and a perylenetetracarboxylic diimide to provide greater luminosity of the color hue red, and halogen-substituted 9,10-bis(phenylethynyl) anthracene to provide greater luminosity of the color hue~~ responsively emitting radiation in at least the green spectrum.

17. (Previously Presented) A light emitting assembly according to claim 1, wherein said down-converting luminophoric medium comprises a ~~perylenetetracarboxylic diimide and a naphthalenetetracarboxylic diimide, and wherein each perylenetetracarboxylic diimide is formulated with a concentration between 10^{-3} and 5 mole percent, and wherein each~~

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~~naphthalenetetracarboxylic diimide is formulated with a concentration between 10^{-2} and 10 mole percent~~ material responsively emitting radiation in at least the yellow spectrum.

18-24. (Cancelled)

25. (Currently amended) A light emission device, comprising an LED energizable to emit radiation with an emission maximum in a spectral range of in the blue to ultraviolet spectrum, and a luminophoric medium arranged to be impinged by radiation emitted from the LED ~~in the blue to ultraviolet spectrum~~ and to responsively emit radiation in a range of wavelengths, so that radiation is emitted from the light emission device as a white light output.

26. (Previously Presented) The light emission device of claim 25, wherein the luminophoric medium comprises phosphor material.

27. (Currently amended) The light emission device of claim 25, wherein the luminophoric medium comprises a material responsively emitting radiation in at least the green ~~to yellow~~ spectrum.

28. (Previously Presented) The light emission device of claim 25, wherein the LED comprises a blue light LED.

29. (Previously Presented) The light emission device of claim 25, wherein the white light output comprises primary radiation emission from the LED and secondary radiation emission from the luminophoric medium.

30. (Currently amended) The light emission device of claim 25, wherein the LED comprises a material selected from the group consisting of: gallium nitride; indium gallium nitride; aluminum gallium indium nitride; aluminum gallium nitride; ~~silicon carbide; and zinc selenide~~ indium nitride.

31. (Currently amended) A display including at least one light emission device, wherein each light emission device comprises an LED energizable to emit radiation with an emission

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maximum in a spectral range of ~~in~~ the blue to ultraviolet spectrum, and a luminophoric medium arranged to be impinged by radiation emitted from the LED ~~in the blue to ultraviolet spectrum~~ and to responsively emit radiation in a range of wavelengths, so that radiation is emitted from the light emission device as a white light output.

32. (Previously Presented) The display of claim 31, wherein the luminophoric medium of each light emission device comprises phosphor material.

33. (Currently amended) The display of claim 31, wherein the luminophoric medium in each light emission device comprises a material responsively emitting radiation in at least the ~~green to yellow~~ spectrum.

34. (Previously Presented) The display of claim 31, wherein the LED in each light emission device comprises a blue light LED.

35. (Previously Presented) The display of claim 31, wherein the white light output of each light emission device comprises primary radiation emission from the LED and secondary radiation emission from the luminophoric medium.

36. (Currently amended) The display of claim 31, wherein the LED in each light emission device comprises a material selected from the group consisting of: gallium nitride; indium gallium nitride; aluminum gallium indium nitride; aluminum gallium nitride; ~~silicon carbide~~; and ~~zinc selenide~~ indium nitride.

37. (Previously Presented) The display of claim 31, comprising a liquid crystal display.

38. (Previously Presented) The display of claim 31, comprising a backlight display.

39. (Currently amended) A white light emitting diode device assembly including an array of light emission devices, each light emission device comprising an LED energizable to emit radiation with an emission maximum in a spectral range of ~~in~~ the blue to ultraviolet spectrum, and a luminophoric medium arranged to be impinged by radiation emitted from the LED ~~in the~~

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~~blue to ultraviolet spectrum~~ and to responsively emit radiation in a range of wavelengths, so that radiation is emitted from the light emission device as a white light output.

40. (Currently amended) The assembly of claim [[34]] 39, constituting a sub-assembly of a display.

41. (Previously Presented) The assembly of claim 39, comprising a backlight illumination panel.

42. (New) The light emission device of claim 25, wherein the luminophoric medium comprises a material responsively emitting radiation in at least the yellow spectrum.

43. (New) The display of claim 31, wherein the luminophoric medium in each light emission device comprises a material responsively emitting radiation in at least the yellow spectrum.

44. (New) An apparatus comprising a display, electrical circuitry operatively coupled with the display, and at least one light emitter including an LED operatively coupled with the electrical circuitry and energizable to emit radiation with an emission maximum in a spectral range of the blue to ultraviolet spectrum, and a luminophoric phosphor medium arranged to be impinged by radiation emitted from the LED and to responsively emit radiation in a range of wavelengths, so that radiation is emitted from the light emitter as a white light output.

45. (New) The apparatus according to claim 44, wherein the display comprises a liquid crystal display.

46. (New) The apparatus according to claim 45, wherein the light emitter provides illumination for the liquid crystal display.

47. (New) The apparatus of claim 44, wherein the luminophoric phosphor medium comprises a phosphor material responsively emitting radiation in at least the green spectrum.

48. (New) The apparatus of claim 44, wherein the luminophoric phosphor medium comprises a phosphor material responsively emitting radiation in at least the yellow spectrum.

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49. (New) The apparatus of claim 44, wherein the LED comprises a blue light LED.
50. (New) The apparatus of claim 44, wherein the white light output of the light emitter comprises primary radiation emission from the LED and secondary radiation emission from the luminophoric phosphor medium.
51. (New) The apparatus of claim 44, comprising a multiplicity of light emitters.
52. (New) The apparatus of claim 44, comprising a power supply operatively coupled with said electrical circuitry.
53. (New) An apparatus comprising:
- a liquid crystal display;
- electrical circuitry operatively coupled with the display;
- a power supply operatively coupled to the electrical circuitry and adapted to power said apparatus;
- at least one light emitter including an LED operatively coupled with the electrical circuitry and energizable to emit radiation with an emission maximum in a spectral range of the blue to ultraviolet spectrum, and a luminophoric phosphor medium arranged to be impinged by radiation emitted from the LED and to responsively emit radiation in a range of wavelengths, so that radiation is emitted from the light emitter as a white light output.
54. (New) The apparatus of claim 53, comprising a telecommunication apparatus.
55. (New) A liquid crystal display, comprising:

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an illumination source including at least one light emitting device, each light emitting device including:

at least one LED energizable to emit radiation with an emission maximum in a spectral range of the blue to ultraviolet spectrum, and

phosphor material arranged to be impinged by radiation emitted from the LED;

said phosphor material, in exposure to radiation impinged thereon from said LED, responsively emitting radiation having longer wavelengths than radiation from the LED; and

said radiation emitted from the LED and said radiation emitted from the phosphor material producing a white light output from said illumination source to illuminate said liquid crystal display.

56. (New) The liquid crystal display of claim 55, comprising multiple LEDs.

57. (New) The liquid crystal display of claim 55, wherein said at least one LED comprises a gallium nitride LED.

58. (New) The liquid crystal display of claim 55, wherein said at least one LED comprises at least one LED selected from the group consisting of gallium nitride LEDs, aluminum gallium nitride LEDs, aluminum gallium indium nitride LEDs, indium nitride LEDs, and indium gallium nitride LEDs.

59. (New) The liquid crystal display of claim 55, wherein said at least one LED comprises an LED emitting in a blue spectrum.

60. (New) The liquid crystal display of claim 55, wherein said radiation emitted from the phosphor material includes emission in at least the red, yellow and green spectrums.

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61. (New) The liquid crystal display of claim 55, further comprising electrical circuitry operatively coupled with the illumination source.

62. (New) The liquid crystal display of claim 61, further comprising a power supply operatively coupled to the electrical circuitry and adapted to power said illumination source.

63. (New) The liquid crystal display of claim 55, wherein said at least one LED comprises multiple blue light LEDs.

64. (New) An assembly, comprising:

a liquid crystal display, comprising an illumination source including at least one LED energizable to emit radiation with a maximum in a spectral range of the blue to ultraviolet spectrum, and a luminophoric phosphor medium arranged to be impinged by radiation emitted from the LED and to responsively emit radiation having longer wavelength than radiation from the LED, to produce white light from said illumination source; and electrical circuitry operatively coupled with the liquid crystal display.

65. (New) The assembly of claim 64, further comprising a power supply operatively coupled to the electrical circuitry and adapted to power said liquid crystal display.

66. (New) The assembly of claim 64, comprising multiple LEDs.

67. (New) The assembly of claim 64, wherein said at least one LED comprises a gallium nitride LED.

68. (New) The assembly of claim 64, wherein said at least one LED comprises at least one LED selected from the group consisting of gallium nitride LEDs, aluminum gallium nitride LEDs, aluminum gallium indium nitride LEDs, indium nitride LEDs, and indium gallium nitride LEDs.

69. (New) The liquid crystal display of claim 64, wherein said at least one LED comprises a blue light LED.